



Material Safety Data Sheet

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 3M(TM) Marine Adhesive Sealant Fast Cure 5200, White; PN 06520 , 05220, 06534, 06535
MANUFACTURER: 3M
DIVISION: Industrial Adhesives and Tapes Division
ADDRESS: 3M Center, St. Paul, MN 55144-1000

EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)

Issue Date: 08/22/12
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Product Use:

Specific Use: Adhesive Sealant
Intended Use: Sealant

SECTION 2: INGREDIENTS

Ingredient	C.A.S. No.	% by Wt
Urethane Polymer	51447-37-1	40 - 70
Titanium Dioxide	13463-67-7	10 - 30
Fumed Silica	112945-52-5	1 - 5
p,p'-Methylenebis(Phenyl Isocyanate)	101-68-8	< 2.4
Zinc Oxide	1314-13-2	< 2.3
Carbitol Acetate	112-15-2	< 2.0
Alkyl Isocyanate Silane	85702-90-5	< 2
Fumed Silica	7631-86-9	0.5 - 1.5
Heptane	142-82-5	< 0.3

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Specific Physical Form: Paste

Odor, Color, Grade: White thixotropic paste, slight odor

General Physical Form: Solid

Immediate health, physical, and environmental hazards: May cause allergic skin reaction. May cause allergic respiratory reaction. May cause target organ effects.

3.2 POTENTIAL HEALTH EFFECTS

Eye Contact:

Moderate Eye Irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Skin Contact:

Allergic Skin Reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Moderate Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness.

Inhalation:

May be harmful if inhaled.

Allergic Respiratory Reaction: Signs/symptoms may include difficulty breathing, wheezing, cough, and tightness of chest.

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Prolonged or repeated exposure, above recommended guidelines, may cause:

Respiratory Effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish colored skin (cyanosis), sputum production, changes in lung function tests, and/or respiratory failure.

May be absorbed following inhalation and cause target organ effects.

Ingestion:

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

May be absorbed following ingestion and cause target organ effects.

Target Organ Effects:

Central Nervous System (CNS) Depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Persons previously sensitized to isocyanates may develop a cross-sensitization reaction to other isocyanates.

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>Class Description</u>	<u>Regulation</u>
Titanium Dioxide	13463-67-7	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Titanium oxide (TiO ₂)	13463677	Grp. 2B: Possible human carc.	International Agency for Research on Cancer

SECTION 4: FIRST AID MEASURES

4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

Eye Contact: Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

Skin Contact: Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water. Get medical

attention. Wash contaminated clothing and clean shoes before reuse.

Inhalation: Remove person to fresh air. If signs/symptoms develop, get medical attention.

If Swallowed: Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. Never give anything by mouth to an unconscious person. Get medical attention.

SECTION 5: FIRE FIGHTING MEASURES

5.1 FLAMMABLE PROPERTIES

Autoignition temperature	<i>No Data Available</i>
Flash Point	No flash point
Flammable Limits(LEL)	<i>Not Applicable</i>
Flammable Limits(UEL)	<i>Not Applicable</i>

5.2 EXTINGUISHING MEDIA

Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).

5.3 PROTECTION OF FIRE FIGHTERS

Special Fire Fighting Procedures: Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

Unusual Fire and Explosion Hazards: No unusual fire or explosion hazards are anticipated.

Note: See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Avoid contact with water.

6.2. Environmental precautions

Place in a container approved for transportation by appropriate authorities, but do not seal the container for 48 hours to avoid pressure build-up. Dispose of collected material as soon as possible.

Clean-up methods

Refer to other sections of this MSDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment. Call 3M-HELPS line (1-800-364-3577) for more information on handling and managing the spill. Collect as much of the spilled material as possible. Clean up residue.

In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.

SECTION 7: HANDLING AND STORAGE

7.1 HANDLING

Avoid eye contact. Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Avoid skin contact. Avoid breathing of vapors. Keep out of the reach of children. Do not ingest.

7.2 STORAGE

Store in a cool place. Store away from heat. Store out of direct sunlight. Keep container tightly closed. Store away from areas where product may come into contact with food or pharmaceuticals.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS

Use with appropriate local exhaust ventilation. Use in an enclosed process area is recommended. Do not use in a confined area or areas with little or no air movement.

8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

8.2.1 Eye/Face Protection

Avoid eye contact.

The following eye protection(s) are recommended: Safety Glasses with side shields

8.2.2 Skin Protection

Not applicable. Avoid skin contact.

Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.

Gloves made from the following material(s) are recommended: Nitrile Rubber

8.2.3 Respiratory Protection

Avoid breathing of vapors.

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece air-purifying respirator suitable for organic vapors

For questions about suitability for a specific application, consult with your respirator manufacturer.

8.2.4 Prevention of Swallowing

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water.

8.3 EXPOSURE GUIDELINES

<u>Ingredient</u>	<u>Authority</u>	<u>Type</u>	<u>Limit</u>	<u>Additional Information</u>
Aluminum, insoluble compounds	ACGIH	TWA, respirable fraction	1 mg/m ³	
FREE ISOCYANATES	Manufacturer determined	TWA	0.005 ppm	
FREE ISOCYANATES	Manufacturer determined	STEL	0.02 ppm	
p,p'-Methylenebis(Phenyl Isocyanate)	ACGIH	TWA	0.005 ppm	
p,p'-Methylenebis(Phenyl Isocyanate)	OSHA	CEIL	0.2 mg/m ³	
Fumed Silica	CMRG	TWA, as respirable	3 mg/m ³	

		dust	
SILICA, AMORPHOUS	OSHA	TWA concentration	0.8 mg/m ³
SILICA, AMORPHOUS	OSHA	TWA	20 millions of particles/cu. ft.
Titanium Dioxide	ACGIH	TWA	10 mg/m ³
Titanium Dioxide	CMRG	TWA, as respirable	5 mg/m ³
		dust	
Titanium Dioxide	OSHA	TWA, as total dust	15 mg/m ³
Titanium oxide (TiO ₂)	ACGIH	TWA	10 mg/m ³
Titanium oxide (TiO ₂)	OSHA	TWA, as total dust	15 mg/m ³
Zinc Oxide	ACGIH	TWA, respirable	2 mg/m ³
		fraction	
Zinc Oxide	ACGIH	STEL, respirable	10 mg/m ³
		fraction	
Zinc Oxide	OSHA	TWA, as fume	5 mg/m ³
Zinc Oxide	OSHA	TWA, respirable	5 mg/m ³
		fraction	
Zinc Oxide	OSHA	TWA, as total dust	15 mg/m ³

SOURCE OF EXPOSURE LIMIT DATA:

ACGIH: American Conference of Governmental Industrial Hygienists

CMRG: Chemical Manufacturer Recommended Guideline

OSHA: Occupational Safety and Health Administration

AIHA: American Industrial Hygiene Association Workplace Environmental Exposure Level (WEEL)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Specific Physical Form:	Paste
Odor, Color, Grade:	White thixotropic paste, slight odor
General Physical Form:	Solid
Autoignition temperature	<i>No Data Available</i>
Flash Point	No flash point
Flammable Limits(LEL)	<i>Not Applicable</i>
Flammable Limits(UEL)	<i>Not Applicable</i>
Boiling Point	<i>Not Applicable</i>
Density	1.3 g/ml
Vapor Density	<i>No Data Available</i>
Vapor Pressure	<i>No Data Available</i>
Specific Gravity	1.3 [<i>Ref Std: WATER=1</i>]
pH	<i>Not Applicable</i>
Melting point	<i>Not Applicable</i>
Solubility in Water	Nil
Evaporation rate	<i>No Data Available</i>
Hazardous Air Pollutants	2.6 % weight [<i>Test Method: Calculated</i>]
Volatile Organic Compounds	38 g/l [<i>Test Method: tested per EPA method 24</i>] [<i>Details: EU VOC content</i>]
Kow - Oct/Water partition coef	<i>No Data Available</i>
Percent volatile	2.83 % weight
VOC Less H₂O & Exempt Solvents	38 g/l [<i>Test Method: tested per EPA method 24</i>]
Viscosity	100000 - 500000 centipoise

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable.

Materials and Conditions to Avoid:

10.1 Conditions to avoid

None known

10.2 Materials to avoid

Amines

Alcohols

Water

Hazardous Polymerization: Hazardous polymerization will not occur.

Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Isocyanates	During Combustion
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Hydrogen Cyanide	During Combustion
Oxides of Nitrogen	During Combustion
Toxic Vapor, Gas, Particulate	During Combustion

SECTION 11: TOXICOLOGICAL INFORMATION

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

Not determined.

CHEMICAL FATE INFORMATION

Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose of completely cured (or polymerized) wastes in a sanitary landfill.
Incinerate uncured product in a permitted hazardous waste incinerator in the presence of a combustible material.
As a disposal alternative, dispose of waste product in a facility permitted to accept chemical waste.

EPA Hazardous Waste Number (RCRA): Not regulated

Since regulations vary, consult applicable regulations or authorities before disposal.

SECTION 14: TRANSPORT INFORMATION

ID Number(s):

60-9800-4557-3, 60-9800-4558-1, 60-9800-4562-3, 62-5239-0330-0, 62-5239-5236-4

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

SECTION 15: REGULATORY INFORMATION

US FEDERAL REGULATIONS

Contact 3M for more information.

311/312 Hazard Categories:

Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - Yes

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

<u>Ingredient</u>	<u>C.A.S. No</u>	<u>% by Wt</u>
p,p'-Methylenebis(Phenyl Isocyanate)	101-68-8	< 2.4
p,p'-Methylenebis(Phenyl Isocyanate) (DIISOCYANATES (CERTAIN CHEMICALS ONLY))	101-68-8	< 2.4
Zinc Oxide (ZINC COMPOUNDS)	1314-13-2	< 2.3
Carbitol Acetate (GLYCOL ETHERS)	112-15-2	< 2.0

STATE REGULATIONS

Contact 3M for more information.

CALIFORNIA PROPOSITION 65

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>Classification</u>
Titanium oxide (TiO ₂)	None	**Carcinogen
Titanium Dioxide	13463-67-7	**Carcinogen

** WARNING: contains a chemical which can cause cancer.

CHEMICAL INVENTORIES

The components of this product are in compliance with the chemical notification requirements of TSCA.

All applicable chemical ingredients in this material are listed on the European Inventory of Existing Chemical Substances (EINECS), or are exempt polymers whose monomers are listed on EINECS. Contact 3M for more information.

INTERNATIONAL REGULATIONS

Contact 3M for more information.

This MSDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: OTHER INFORMATION

NFPA Hazard Classification

Health: 2 Flammability: 1 Reactivity: 1 Special Hazards: None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

Revision Changes:

Section 3: Potential effects from skin contact information was modified.

Section 3: Potential effects from inhalation information was modified.

Section 7: Storage information was modified.

Section 8: Engineering controls information was modified.

Section 8: Skin protection phrase was modified.

Section 8: Respiratory protection - recommended respirators was modified.

Section 8: Respiratory protection - recommended respirators guide was modified.

Section 14: ID Number(s) Template 1 was modified.

Section 15: California proposition 65 ingredient information was modified.

Section 8: Respiratory protection - recommended respirators punctuation was deleted.

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